AUTHOR INDEX TO VOLUME 18

Issu	e Pag	e die die die die die die die die die di	
3	331	Ahmad, S.	Use of discrete basis sets in configuration interaction calculation.
1	163	Amakawa, H.	Exact finite range DWBA form factor for heavy-ion induced nuclear reactions.
1	27	Batana, A.	Analysis of Faradaic impedance experimental measurements.
2	245	Beatham, N.	MCBP: a program to calculate angular coefficients of the Breit interaction between electrons in the low energy limit.
1	133	Campbell, J.B.	Bessel functions Jnu(x) and Ynu(x) of real order and real argument.
3	305	Caprini, I.	A guide to analytic extrapolations. Part II: a program to be used in finding analytic correlations of data, and for detecting zeros and poles of the scattering amplitude.
1	35	Chang, B.D.	A program to generate closed basic diagrams for product operators.
1	87	Cherepkov, N.A.	Frozen core Hartree-Fock program for atomic discrete and continuous states.
1	87	Chernysheva, L.V.	Frozen core Hartree-Fock program for atomic discrete and continuous states.
2	215	Ciulli, M.	A guide to analytic extrapolations. Part I: a program for optimal extrapolation to interior points.
3	305	Ciulli, M.	A guide to analytic extrapolations. Part II: a program to be used in finding analytic correlations of data, and for detecting zeros and poles of the scattering amplitude.
2	215	Ciulli, S.	A guide to analytic extrapolations. Part I: a program for optimal extrapolation to interior points.
3	305	Ciulli, S.	A guide to analytic extrapolations. Part II: a program to be used in finding analytic correlations of data, and for detecting zeros and poles of the scattering amplitude.
1	63	Delic, G.	Chebyshev expansion of the associated Legendre polynomial PLM(x).
1	73	Delic, G.	Chebyshev series for the spherical Bessel function jl(r).
2	205	Demmig, F.	The computation of unsteady non-equilibrium shock tube flows comprising a tailor-made discretization of boundary layer terms.
3	401	Der, R.	A program to calculate internal conversion coefficients including higher-order corrections for all atomic shells.
1	143	Deutsch, M.	Slit height smearing correction in small angle X-ray scattering III: intensity correction program adaptation to arbitrary slit transmission function.
1	149	Deutsch, M.	Slit height smearing correction in small angle X-ray scattering IV: computation of the correction function for an arbitrary slit transmission function.

441 Palting, P.

Issu	e Pag	e	
2	297	Fijalkow, E.	Radiation potential of a point antenna immersed in drifting cold or hot (hydrodynamical) plasma.
2	201	Gastmans, R.	Symbolic evaluation of dimensionally regularized Feynman diagrams.
1	27	Gonzalez, E.R.	Analysis of Faradaic impedance experimental measurements.
2	245	Grant, I.P.	MCBP: a program to calculate angular coefficients of the Breit interaction between electrons in the low energy limit.
3	401	Hinneburg, D.	A program to calculate internal conversion coefficients including higher-order corrections for all atomic shells.
3	441	Huzinaga, S.	Erratum notice. A compact program of the SCF-Xalpha scattered wave method.
1	7	Kaplanis, S.N.	Monte Carlo solutions of the solid angle integrals for radiation detectors.
3	441	Katsuki, S.	Erratum notice. A compact program of the SCF-Xalpha scattered wave method.
2	211	Killingbeck, J.	Some applications of perturbation theory to numerical integration methods for the Schrodinger equation.
3	339	Kitowski, J.	Computer simulation of heuristic reinforcement-learning systems for nuclear power plant load changes control.
3	327	Kritsky, V.G.	The problem of comparison of two spectra.
3	385	Kruger, P.B.	Calculation of the nucleation and growth of defect clusters.
1	109	Lewis, M.N.	Z-expansion of matrix elements of one-electron operators for many-electron atoms.
2	287	Luke, T.M.	ECSIMPACT: a special version of program IMPACT for CDC machines with ex-core memory.
3	385	Mayer, R.M.	Calculation of the nucleation and growth of defect clusters.
2	245	McKenzie, B.J.	MCBP: a program to calculate angular coefficients of the Breit interaction between electrons in the low energy limit.
1	27	Monard, M.C.	Analysis of Faradaic impedance experimental measurements.
1	155	Moriarty, K.J.M.	Program adaptation: to calculate inclusive backward proton production cross sections.
3	339	Moscinski, J.	Computer simulation of heuristic reinforcement-learning systems for nuclear power plant load changes control.
2	297	Mourgues, G.	Radiation potential of a point antenna immersed in drifting cold or hot (hydrodynamical) plasma.
3	401	Nagel, M.	A program to calculate internal conversion coefficients including higher-order corrections for all atomic shells.
3	331	Newman, D.J.	Use of discrete basis sets in configuration interaction calculation.
1	101	Nielsen, O.H.	Lattice dynamics of group IV semiconductors using an adiabatic bond charge model.
_			

Erratum notice. A compact program of the SCF-Xalpha scattered wave method.

1 2

Issi	ue Pag	ge	
1	13	Petravic, G.K.	A program generator for the incomplete LU decomposition-conjugate gradient (ILUCG) method.
1	13	Petravic, M.	A program generator for the incomplete LU decomposition-conjugate gradient (ILUCG) method.
3	305	Pomponiu, C.	A guide to analytic extrapolations. Part II: a program to be used in finding analytic correlations of data, and for detecting zeros and poles of the scattering amplitude.
2	261	Preuss, E.	Plot program for Laue patterns and stereographic projections.
2	277	Preuss, E.	Calculation of crystal orientations using Laue patterns.
2	245	Pyper, N.C.	MCBP: a program to calculate angular coefficients of the Breit interaction between electrons in the low energy limit.
1	87	Radojevic, V.	Frozen core Hartree-Fock program for atomic discrete and continuous states.
2	205	Ritter, R.R.	The computation of unsteady non-equilibrium shock tube flows comprising a tailor-made discretization of boundary layer terms.
3	353	Roberts, S.A.	Numerical modelling of a chemical plasma. I. REACS: a program to generate all reactions which take place in a plasma of given chemical content.
3	363	Roberts, S.A.	Numerical modelling of a chemical plasma. II. PLASKEM: a program to predict the variation with time of the number densities of chemical species within a plasma.
3	377	Roberts, S.A.	Numerical modelling of a chemical plasma. III. DATSTOR: a program to create a database containing information on rate coefficients of chemical reactions.
2	287	Saraph, H.E.	ECSIMPACT: a special version of program IMPACT for CDC machines with ex-core memory.
3	305	Sararu, M.	A guide to analytic extrapolations. Part II: a program to be used in finding analytic correlations of data, and for detecting zeros and poles of the scattering amplitude.
1	7	Stavroulaki, B.Th.	Monte Carlo solutions of the solid angle integrals for radiation detectors.
3	305	Stefanescu, I.S.	A guide to analytic extrapolations. Part II: a program to be used in finding analytic correlations of data, and for detecting zeros and poles of the scattering amplitude.
1	1	Strubbe, H.	Development of the SCHOONSCHIP program.
3	427	Takemasa, T.	Complex angular momentum methods for elastic scattering with an optical potential.
1	163	Tamura, T.	Exact finite range DWBA form factor for heavy-ion induced nuclear reactions.
3	427	Tamura, T.	Complex angular momentum methods for elastic scattering with an optical potential.
1	155	Thompson, H.N.	Program adaptation: to calculate inclusive backward proton production cross sections.
1	123	Thomson, R.M.	Transport properties of dilute gas mixtures.
2	171	Tscharnuter, W.M.	A method for computing selfgravitating gas flows with radiation.

Issue Page

1	163	Udagawa, T.	Exact finite range DWBA form factor for heavy-ion induced nuclear reactions.
3	327	Ufimtcev, M.V.	The problem of comparison of two spectra.
2	201	Van Proeyen, A.	Symbolic evaluation of dimensionally regularized Feynman diagrams.
2	201	Verbaeten, P.	Symbolic evaluation of dimensionally regularized Feynman diagrams.
3	411	Von Meerwall, E.D.	An all-purpose curve-fitting program for functions of several variables.
3	417	Von Meerwall, E.D.	A Fortran program to perform signal averaging, multichannel scaling and pulse-height analysis.
1	101	Weber, W.	Lattice dynamics of group IV semiconductors using an adiabatic bond charge model.
2	171	Winkler, KH.	A method for computing selfgravitating gas flows with radiation.
3	427	Wolter, H.H.	Complex angular momentum methods for elastic scattering with an optical potential.
1	35	Wong, S.S.M.	A program to generate closed basic diagrams for product operators.
1	163	Wood, K.E.	Exact finite range DWBA form factor for heavy-ion induced nuclear reactions.
3	327	Zaikin, P.N.	The problem of comparison of two spectra.
2	281	Zlokazov, V.B.	DOMUS: a program for the analysis of two-dimensional spectra.

2

2

PROGRAM INDEX TO VOLUME 18

Atom	ic Phy	sics	
Issue	Page	Cat.no.	
1	87	AAKZ	ATOMIC FROZEN CORE HARTREE-FOCK (Algol). Frozen core Hartree-Fock program for atomic discrete and continuous states. L.V. Chernysheva, N.A. Cherepkov and V. Radojevic. Subroutine required by this program (for data) is AAKQ 11(1976)57.
1	109	AACH	SSTR-TRANSITION GENERALIZED SUMS (Fortran). Z-expansion of matrix elements of one-electron operators for many-electron atoms. M.N. Lewis.
2	245	AAAL	MCBP-BREIT ANGULAR COEFFICIENTS (Fortran). MCBP: a program to calculate angular coefficients of the Breit interaction between electrons in the low energy limit. N. Beatham, I.P. Grant, B.J. McKenzie and N.C. Pyper. Subroutines required by this program are AAHD 8(1974)151, ACRI 4(1972)377, ACWE 11(1976)397.
2	287	ACYF	0001ADAPT IMPPRO FOR ECSIMPACT (Fortran). Preprocessor for ECSIMPACT: a special version of program IMPACT for CDC machines with ex-core memory. H.E. Saraph.
2	287	ACZK	ECSIMPACT (Fortran). ECSIMPACT: a special version of program IMPACT for CDC machines with ex-core memory. T.M. Luke and H.E. Saraph. Subroutines required by this program are ACYF 15(1978)23, ACYF0001 18(1979)287. See other version of this program ACYE 15(1978)23.
3	401	AAMB	INTERNAL CONVERSION COEFFICIENTS (Fortran). A program to calculate internal conversion coefficients including higher-order corrections for all atomic shells R. Der, D. Hinneburg and M. Nagel.
Chem	istry		
1	27	ACZA	BATAN (Fortran). Analysis of Faradaic impedance experimental measurements. A. Batana, E.R. Gonzalez and M.C. Monard.
Crysta	allogra	phy	
	143	AASB	0001 CORECTSP (Fortran). Slit height smearing correction in small angle X-ray scattering III: intensity correction program adaptation to arbitrary slit transmission function. M. Deutsch. Subroutine required by this program (for data) is AASD 18(1979)149.
1	149	AASD	GTSPLINE (Fortran). Slit height smearing correction in small angle X-ray scattering IV: computation of the correction function for an arbitrary slit transmission function. M. Deutsch.
2	261	AAQE	PLOMAC (Fortran). Plot program for Laue patterns and stereographic projections. E. Preuss.
2	277	AAQF	COL (Fortran). Calculation of crystal orientations using Laue patterns. E. Preuss. Subroutine required by this program (for data) is AAQE 18(1979)261.
			A separation of the second sec

Flui	d Dyn	amics		
1	123	ACZO	GAS MIXTURE TRANSPORT PROPERTIES (Fortran). dilute gas mixtures. R.M. Thomson.	Transport properties of
Gen	erel D	IPPOSA		

Ger	neral P	urpose	
1	13	ABSE	GENLU (Fortran). A program generator for the incomplete LU decomposition-conjugate gradient (ILUCG) method. G.K. Petravic and M. Petravic.
1	35	ACZI	CONTRACTION-BASIC-DIAGRAM (Fortran). A program to generate closed basic diagrams for product operators. B.D. Chang and S.S.M. Wong.
. 1	63	ACZN	PLMCHB (Fortran). Chebyshev expansion of the associated Legendre polynomial PLM(x). G. Delic.
1	73	ACZM	JLRCHB (Fortran). Chebyshev series for the spherical Bessel function jl(r). G. Delic.
1	133	ACZP	BESSJY (Fortran). Bessel functions Jnu(x) and Ynu(x) of real order and real argument. J.B. Campbell.
3	411	ABNH	UNIFIT4 (Fortran). An all-purpose curve-fitting program for functions of several

variables. E.D. von Meerwall. See other version of this program ABMR 11(1976)211.	R	
---	---	--

Laser Physica	Laser	Physics
---------------	-------	---------

3	353	ACZD	REACS (Fortran). Numerical modelling of a chemical plasma. I. REACS: a program to generate all reactions which take place in a plasma of given chemical content. S.A. Roberts. Subroutine required by this program (for data) is ACZF 18(1979)377.	
3	363	ACZE	PLASKEM (Fortran). Numerical modelling of a chemical plasma. II. PLASKEM: a program to predict the variation with time of the number densities of chemical species within a plasma. S.A. Roberts. Subroutines required by this program (for data) are ACWX 11(1976)369, ACZD 18(1979)353, ACZF 18(1979)377.	
3	377	ACZE	DATSTOP (Fortran) Numerical modelling of a chamical plasma III	

3	377	ACZF	DATSTOR (Fortran). Numerical modelling of a chemical plasma. III.	
			DATSTOR: a program to create a database containing information on rate	
			coefficients of chemical reactions. S.A. Roberts.	

Molecular	Physics
********	T my orco

1	123	ACZO	GAS MIXTURE TRANSPORT PROPERTIES (Fortran). Transport properties of dilute gas mixtures. R.M. Thomson.
2	281	ABAB	DOMUS (Fortran). DOMUS: a program for the analysis of two-dimensional spectra. V.B. Zlokazov.
3	441	ACXN	000ACORRECTION 07/09/79 (Fortran). A compact program of the SCF-Xalpha scattered wave method. S. Katsuki, P. Palting and S. Huzinaga.

Nuclear Physics

1	155	AAUR	0001 BACKWARD INCLUSIVE PROTONS (Fortran). Program adaptation: to calculate inclusive backward proton production cross sections. K.J.M. Moriarty and H.N. Thompson. Subroutines required by this program are AAUN 9(1975)85, AAUN0001 15(1978)437.
1	163	ABPA	0001 SATURN-2-FOR-EFR-DWBA (Fortran). Exact finite range DWBA form factor for heavy-ion induced nuclear reactions. T. Tamura, T. Udagawa,

K.E. Wood and H. Amakawa.

Nuclear Physics (cont.)

Issue	Page	Cat.no.	
2	215	AAUT	ANALYT (Fortran). A guide to analytic extrapolations. A program for optimal extrapolation to interior points and to be used in finding analytic correlations of data and for detecting zeros and poles of the scattering amplitude. I. Caprini, M. Ciulli, S. Ciulli, C. Pomponiu, M. Sararu and I.S. Stefanescu.
2	281	ABAB	DOMUS (Fortran). DOMUS: a program for the analysis of two-dimensional spectra. V.B. Zlokazov.
3	401	AAMB	INTERNAL CONVERSION COEFFICIENTS (Fortran). A program to calculate internal conversion coefficients including higher-order corrections for all atomic shells. R. Der, D. Hinneburg and M. Nagel.
3	417	ABNG	SAMCS1 (Fortran). A Fortran program to perform signal averaging, multichannel scaling and pulse-height analysis. E.D. von Meerwall.
3	427	ABNF	REGGE (Fortran). Complex angular momentum methods for elastic scattering with an optical potential. T. Takemasa, T. Tamura and H.H. Wolter.

Plasma Physics

2	297	ABUZ	DRFT (Fortran). Radiation potential of a point antenna immersed in drifting cold or hot (hydrodynamical) plasma. E. Fijalkow and G. Mourgues.
3	353	ACZD	REACS (Fortran). Numerical modelling of a chemical plasma. I. REACS: a program to generate all reactions which take place in a plasma of given chemical content. S.A. Roberts. Subroutine required by this program (for data) is ACZF 18(1979)377.
3	363	ACZE	PLASKEM (Fortran). Numerical modelling of a chemical plasma. II. PLASKEM: a program to predict the variation with time of the number densities of chemical species within a plasma. S.A. Roberts. Subroutines required by this program (for data) are ACWX 11(1976)369, ACZD 18(1979)353, ACZF 18(1979)377.
3	377	ACZF	DATSTOR (Fortran). Numerical modelling of a chemical plasma. III. DATSTOR: a program to create a database containing information on rate coefficients of chemical reactions. S.A. Roberts.

Quantum Chemistry

3	441	ACXN	000ACORRECTION 07/09/79 (Fortran). A compact program of the SCF-Xalpha
			scattered wave method. S. Katsuki, P. Palting and S. Huzinaga.

Radiation Physics

3	385	ACUE	CLUSTER 78 (Fortran). Calculation of the nucleation and growth of defect clusters.
			P.B. Kruger and R.M. Mayer.

Solid State Physics

1	101	ACUD	ADIABATIC BOND CHARGE MODEL (Fortran). Lattice dynamics of group IV
			semiconductors using an adiabatic bond charge model. O.H. Nielsen and W. Weber.